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The report of posttraumatic growth in Malaysian cancer patients: relationships with psychological distress and coping strategies

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Abstract

Objective: The challenge of a cancer diagnosis may eventually lead to the experience of positive psychological changes, also referred to as *posttraumatic growth*. As most research on posttraumatic growth in cancer patients has been conducted in Western countries, little is known about the experience of such positive psychological changes in non-Western countries. Therefore, the purpose of this cross-sectional study was to investigate the prevalence of posttraumatic growth in a Malaysian sample of cancer patients. Secondly, we examined the association of posttraumatic growth with patients' report of psychological distress and their use of coping strategies.

Methods: The study was conducted in 113 cancer patients. Posttraumatic growth was measured by the Posttraumatic Growth Inventory, coping strategies by the brief COPE, and psychological distress by the Symptom Check List (SCL-90-R).

Results: Results showed that many patients reported posttraumatic growth, mostly in the domain of appreciation of life. As hypothesized, the experience of posttraumatic growth was not significantly related to the level of psychological distress. Findings indicated that greater use of the coping strategies instrumental support, positive reframing, and humor was associated with more posttraumatic growth.

Conclusion: Overall, this study suggests that posttraumatic growth is not only a Western phenomenon. Malaysian cancer patients show similar trends in the report of growth as well as in its correlates as their Western counterparts.

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Keywords: cancer; oncology; Asian; posttraumatic growth; coping; distress

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Introduction

A growing body of literature suggests that a wide variety of stressful life events may be a catalyst for posttraumatic growth. This concept refers to 'the positive psychological changes experienced as the result of the struggle with highly challenging life circumstances' [1–3]. These positive changes may involve changes in one's self-perception, changes in social relationships with family and friends, and changes in priorities and philosophy of life [4,5]. The experience of posttraumatic growth has also been observed in cancer patients. Sears *et al.* [6] found that 83% of women with early-stage breast cancer report positive consequences from their cancer experience. Frequently reported positive changes include altered priorities, better relationships with others, a greater sense of purpose, and a greater appreciation of one-self and one's life [7–10]. Intriguingly, it has been found that the experience of such positive changes may co-occur

with negative psychological changes, such as an increased awareness of physical limitations and increased uncertainty about the future [11].

Tedeschi and Calhoun [2] view posttraumatic growth as an outcome of the struggle with a traumatic event, conceptually distinct from outcomes related to psychological distress. Findings regarding the relation between posttraumatic growth and psychological distress are mixed in psycho-oncology literature. Some studies found weak or no concurrent relationship between posttraumatic growth and distress [12,13], while other studies found a negative association [14]. Thus, it remains unclear to what extent cancer patients who experience positive changes are better off in terms of less distress.

So far, nearly all research on posttraumatic growth has been carried out in Western countries, mostly in the US. This has led to the speculation that the experience of posttraumatic growth may be a Western created construct, shaped by the socio-cultural environment [15,16]. Ho *et al.* [17], among

others, suggested that individuality, autonomy, personal values, and liberty are more emphasized in Western cultures, whereas connectedness, (family) relationships, group values, and harmony are more emphasized in Asian cultures. Such differences may affect the experience and nature of growth following trauma, with a lower report of growth especially regarding positive changes in personal strengths and new possibilities. In addition, McMillen [16] advocated that the American culture, more than other cultures, may promote a positive attitude when confronted with a stressful event and that posttraumatic growth might be a Western phenomenon. However, Ho *et al.* [17] found that many Chinese cancer patients report positive changes due to the illness. In order to enhance our understanding of posttraumatic growth and to examine the extent to which posttraumatic growth is a universal experience, we investigated its prevalence in Malaysian cancer patients. Malaysia is a multi-cultural nation, with a mix of Malays (65%), Chinese-descents (26%), and Indian-descents (8%), and different religions such as Islam (60%), Buddhism (19%), Christianity (9%), Hinduism (6%), and Confucianism/Taoism (3%) being practiced [18]. Like most Asian cultures, the Malaysian culture emphasizes values such as courtesy, tolerance, harmony, and relationships among family members, neighbors, and community. Malaysians speak English, a legacy of British colonialism, although Malay is officially considered the first language. Like all developing countries, cancer is a major health problem in Malaysia, with rising incidence rates [19,20]. One of four Malaysians will get cancer in their lifetime. Although excellent medical healthcare can be obtained in Malaysia, there is a dearth of information about patients' psychological functioning [21]. In this study, we focused on the positive psychological consequences experienced by Malaysian patients as a result of the cancer experience.

A second purpose of this study was to examine whether patients' use of coping strategies is associated with the experience of posttraumatic growth. Tedeschi and Calhoun [2] suggest that cognitive processing and coping responses to manage the stressful circumstances play an important role in the development of posttraumatic growth. This is in line with more general stress-coping theories that consider cognitive and behavioral coping strategies to be central in the adaptation to a stressful event [22–25]. So far, several studies have examined the role of coping strategies in the experience of posttraumatic growth. Sears *et al.* [6] found a positive relationship between the coping strategy positive reframing and posttraumatic growth. Urcuyo *et al.* [14] found that positive reframing as well as religious coping were strongly related to perceived positive changes, whereas avoidance coping strategies were not significantly related to positive changes. One may

reason that the cultural differences between Western and Asian cultures could influence the strength of the associations of coping with posttraumatic growth. Interestingly however, Ho *et al.* [17] found similar findings in the sample of Chinese cancer survivors, with a positive attitude associated with more posttraumatic growth and avoidant coping not significantly related to posttraumatic growth. These studies provide valuable information about the relationship between coping and posttraumatic growth and suggest similarities between American and Asian cancer patients in the type of coping strategies related to posttraumatic growth. However, definite conclusions based on these studies are limited as these studies focused on a limited range of coping strategies. In order to expand previous results, we explored the association of a wide array of cognitive and behavioral coping strategies with the experience of posttraumatic growth.

In conclusion, to address the gap in knowledge regarding the occurrence of posttraumatic growth in Asian cultures and its relationship to coping strategies, the objectives of this study were three fold. First, we tested the hypothesis that the majority of Malaysian cancer patients would experience posttraumatic growth [see 6,17]. Second, we examined the assumption that posttraumatic growth and psychological distress (in terms of depression and anxiety) would not be significantly related to each other. Third, we examined whether the use of particular coping strategies is related to the experience of posttraumatic growth. It was hypothesized that positive reframing and religious coping would be positively associated to posttraumatic growth [6,14,17]. No significant relationships were expected between avoidance coping strategies (i.e. self-distraction, denial, venting emotions, self-blame, behavioral disengagement) and posttraumatic growth. As previous studies have not explicitly examined the role of planning and active coping, humor, acceptance, and coping using social support in relation to growth, no specific hypotheses were formulated regarding these coping strategies. The knowledge from this study may be relevant to health-care professionals working with cancer patients in Malaysia as well as beyond. If coping strategies appear to play a role in the experience of posttraumatic growth, clinical interventions may be developed to promote perceptions of growth by means of changing (mal) adaptive coping strategies.

Methods

Sample and design

Patients were recruited through a non-profit organization in Malaysia, which advocates complementary cancer treatment. The study was carried out in compliance with ethical standards. The staff of the

organization introduced the study to patients who came into the center. Those willing to participate in the study were asked to sign a consent form and to complete a self-report questionnaire. In total, 113 patients participated in the study, slightly more female patients (66.4%), with a mean age of 51.78 years old ($SD = 11.14$; range = 17–85). The majority was married (81.4%) and a significant number were either housewives (30.1%) or retirees (17.7%). Most patients were from a Chinese (82.3%) or Malay (11.5%) ethnic background. Patients generally affiliated themselves with a religion: Buddhism (47.8%), Christianity (30.1%), or Islam (14.2%).

The most common cancer sites were breast (36.3%), nasopharyngeal carcinoma (15.9%), colorectal (15.0%), and lung (7.1%). Disease stages at diagnosis were Stage I (32.4%), Stage II (32.4%), Stage III (14.4%), and Stage IV (20.7%). Mean time since diagnosis was 45 months ($SD = 40.53$; range = 1–233 months). Many patients were treated by surgery (60.2%), chemotherapy (49.6%), and radiotherapy (38.9%). Of the patients, 21.2% reported a cancer recurrence and 23.9% were undergoing medical treatment at the time of study.

Measures

Posttraumatic growth

The original English version of the Posttraumatic Growth Inventory (PTGI) [4] was used to measure posttraumatic growth. Patients answered statements that asked to what extent a particular change had occurred in their life as a result of the cancer experience. The PTGI comprises 21 items, with response choices ranging from 0–5 (0 = 'I did not experience this change'; 5 = 'I experienced this change to a very great degree'). The PTGI measures five domains of growth: (a) relating to others better (seven items, e.g. 'I have a greater sense of closeness with others'), (b) recognizing new possibilities (five items, e.g. 'New opportunities are available which would not have been otherwise'), (c) a greater sense of personal strength (four items, e.g. 'I discovered that I'm stronger than I thought I was'), (d) spiritual change (two items, e.g. 'I have a better understanding of spiritual matters'), and (e) greater appreciation of life (three items, e.g. 'I have a greater appreciation for the value of my own life'). In the present study Cronbach α 's of the total scale was 0.96 and those of the subscales were 0.68 or greater.

Coping strategies

Patients filled out the original English version of the brief COPE [26], a 28-item coping inventory. Patients answered ratings that asked how often they employed a particular strategy as a way of coping with the stress from the cancer experience

(1 = I have not been doing this at all, 4 = I have been doing this a lot). The instrument measures 14 coping strategies (two items each). The subscale substance use was excluded from the analyses because it lacked variance (93% of the patients reported that they have not been using this strategy at all). The remaining 13 coping strategies include self-distraction (e.g. 'doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping'), active coping (e.g. 'taking action to try to make the situation better'), denial (e.g. 'refusing to believe that it has happened'), use of emotional support (e.g. 'getting comfort and understanding from someone'), use of instrumental support (e.g. 'getting help and advice from other people'), behavioral disengagement (e.g. 'giving up the attempt to cope'), venting (e.g. 'saying things to let my unpleasant feelings escape'), positive reframing (e.g. 'trying to see it in a different light, to make it seem more positive'), planning (e.g. 'thinking hard about what steps to take'), humor (e.g. 'making jokes about it'), acceptance (e.g. 'accepting the reality of the fact that it has happened'), religion (e.g. 'praying or meditating') and self-blame (e.g. 'criticizing myself'). All subscales appeared to have a good reliability, with Cronbach α 's 0.60 or greater, except for self-distraction ($\alpha = 0.23$), acceptance ($\alpha = 0.50$), and venting ($\alpha = 0.46$). These latter three scales were excluded from further analyses.

The brief COPE has previously been used in Asian populations [27], showing its usefulness in measuring coping in an Asian cultural setting. In the present study, active coping, use of emotional and instrumental support, acceptance, positive reframing, planning, and religion were the most frequently used coping strategies, whereas denial, behavioral disengagement, and self-blame were the least used coping strategies. This corresponds with other studies that used the brief COPE in cancer patients, both in Western and in Asian populations [27,28].

Psychological distress

Patients filled out two subscales of the Symptom Check List (SCL-90-R) [29]: a 13-item depression subscale (e.g. 'feeling blue'; 'feeling no interest in things') and a 10-item anxiety subscale (e.g. 'nervous or shaking inside'; 'feeling fearful'). Patients were asked to rate how much these symptoms had bothered them in the past seven days (0 = Not at all, 4 = extremely). Higher scores indicate more depression and anxiety. Cronbach α 's were 0.92 for depressive symptoms and 0.94 for anxiety.

Statistical analyses

Descriptive statistics were used to study the prevalence of posttraumatic growth. In order to

characterize the most common types of posttraumatic growth, PTGI items were dichotomized into: 0 = item endorsed 'not at all' to 'small degree' (answer rating 0, 1, or 2) and 1 = item endorsed 'moderate degree' to 'very great degree' (answer rating 3, 4, or 5). A sum score was then calculated, with 0 being the lowest possible score and 21 being the highest possible score. This score was used only for descriptive purposes. For the correlational and regression analyses, we used the continuous PTGI sumscore.

Pearson correlations were used to examine the relationships between posttraumatic growth and depression and anxiety¹ and associations of coping strategies with posttraumatic growth. Finally, a hierarchical multiple regression analysis was performed to examine the unique contribution of coping strategies to the report of growth. We first tested whether patients' demographic and medical characteristics were related to growth. Only treatment by chemotherapy was significantly related to growth. Patients who had chemotherapy reported more growth than those who did not have chemotherapy ($p < 0.05$). We therefore entered chemotherapy into the equation in the first step. The coping strategies significantly related to posttraumatic growth were entered in the second step (method: enter).

Results

Descriptive statistics

Cancer patients reported posttraumatic growth in a moderate to great degree ($M = 73.12$, $SD = 19.75$; total range 12–105), with a mean item score of 3.48. Mean scores on the subscales were as follows: relating to others better ($M = 24.39$, $SD = 6.55$), recognizing new possibilities ($M = 16.26$, $SD = 5.94$), greater sense of personal strength ($M = 14.03$, $SD = 4.30$), spiritual change ($M = 7.29$, $SD = 2.19$), and greater appreciation of life ($M = 11.15$, $SD = 3.07$). Mean item scores on the five subscales varied from 3.25 (recognizing new possibilities) to 3.72 (greater appreciation of life). On average, patients experienced 17 of the 21 PTGI items ($M = 17.22$, $SD = 4.85$; range 2–21) at a moderate to very great degree. Top three most frequently reported growth experiences were 'I have a greater appreciation for the value of my own life' (92%), 'I can better appreciate each day' (92%), and 'I have more compassion for others' (93%) (Table 1).

¹We explored the possibility that the relationship between posttraumatic growth and distress may be curvilinear. First, we distinguished three equal sized groups: low-, intermediate-, and high-posttraumatic growth groups. Using analysis of variance, we found no significant differences in anxiety and depression among these three groups, only a weak trend showing lowest levels of anxiety and depression in the high-posttraumatic growth group. Therefore, only the linear correlations among growth and psychological distress are reported.

(92%), and 'I have more compassion for others' (93%) (Table 1).

Relationships between posttraumatic growth and psychological distress

Posttraumatic growth was not significantly related to depression and anxiety. All correlations between the subscales and the total growth score and anxiety and depression were nonsignificant ($r < -0.16$). Thus, patients' report of positive psychological changes as a result of the cancer experience was not significantly related to the amount of psychological distress that they experienced.

Relationships between coping strategies and posttraumatic growth

As can be seen in Table 2, some coping strategies were moderately interrelated. For instance, the use of more active coping was significantly associated with more use of emotional and instrumental support, positive reframing, humor, planning, and religion ($p < 0.001$). A greater use of these coping strategies was also significantly related to more posttraumatic growth. Avoidant types of coping (i.e. behavioral disengagement, self-blame, and denial) were not significant related to growth.

Regression analyses for coping strategies predicting posttraumatic growth

A hierarchical multiple regression analysis was performed to examine the relative contribution of

Table 1. The prevalence of posttraumatic growth

1. I changed my priorities about what is important in life	77%
2. I have a greater appreciation for the value of my own life	92%
3. I developed new interests	67%
4. I have a greater feeling of self-reliance	77%
5. I have a better understanding of spiritual matters	81%
6. I more clearly see that I can count on people in times of trouble	81%
7. I established a new path for my life	78%
8. I have a greater sense of closeness with others	83%
9. I am more willing to express my emotions	71%
10. I know better that I can handle difficulties	81%
11. I am able to do better things with my life	78%
12. I am better able to accept the way things work out	83%
13. I can better appreciate each day	92%
14. New opportunities are available which wouldn't have been otherwise	69%
15. I have more compassion for others	93%
16. I put more effort into my relationships	84%
17. I am more likely to try to change things which need changing	85%
18. I have a stronger religious faith	88%
19. I discovered that I'm stronger than I thought I was	88%
20. I learned a great deal about how wonderful people are	85%
21. I better accept needing others	89%

Percentage of patients reporting particular growth experience in moderate to very great degree.

Table 2. Correlations between coping strategies and posttraumatic growth

	Active coping	Denial	Emotional support	Instrumental support	Behavioral disengagement	Positive reframing	Planning	Humor	Religion	Self-blame
Active coping	—									
Denial	0.09	—								
Emotional support	0.41***	0.15	—							
Instrumental support	0.62***	0.15	0.71***	—						
Behavioral disengagement	−0.15	0.36***	0.13	−0.08	—					
Positive reframing	0.47***	0.16	0.40***	0.54***	−0.06	—				
Planning	0.65***	0.16	0.58***	0.68***	0.01	0.40***	—			
Humor	0.20*	0.18	0.23*	0.24*	0.01	0.39***	0.04	—		
Religion	0.35***	0.15	0.29**	0.40***	0.05	0.43***	0.31**	0.02	—	
Self-blame	0.05	0.16	0.14	0.01	0.26**	−0.07	0.06	0.17	−0.01	—
Posttraumatic growth	0.46***	0.03	0.38***	0.58***	−0.12	0.55***	0.40***	0.35***	0.39***	−0.11

$p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

coping strategies to posttraumatic growth (Table 3). In the first step, chemotherapy accounted for 5% of the variance of posttraumatic growth. The coping strategies explained an additional 41% of the variance of growth. The total model explained 46% of the variance ($F(8,101) = 10.65$, $p < 0.001$). Instrumental support ($\beta = 0.38$, $p < 0.01$), positive reframing ($\beta = 0.21$, $p < 0.05$), and humor ($\beta = 0.18$, $p < 0.05$) were significant predictors of growth. A greater use of these three coping strategies was significantly associated with a greater experience of posttraumatic growth.

Discussion

This cross-sectional study examined the relationship between posttraumatic growth and psychological distress and coping strategies in a heterogeneous sample of 113 Malaysian cancer patients. This is one of the few studies on cancer-related posttraumatic growth in an Asian cultural setting. The results showed that many patients reported positive changes as a result of the cancer experience, especially a greater appreciation of life. As hypothesized, no significant relationship was found between posttraumatic growth and psychological distress. Coping strategies most significantly related to posttraumatic growth were instrumental support, positive reframing, and humor. In contrast, avoidant coping strategies (i.e. denial, behavioral disengagement, self-blame) were not significant related to growth.

Regarding the prevalence of posttraumatic growth, we found a slightly higher PTGI mean score (73.1) than other studies measuring posttraumatic growth in cancer patients. Studies examining cancer patients in the US (on average 1 or 2 years

Table 3. Regression analysis on posttraumatic growth

	Model	Beta weight	T
Step 1	Chemotherapy	−0.21*	−2.25
Step 2	Chemotherapy	−0.01	−0.15
	Active coping	0.08	0.71
	Emotional support	−0.09	−0.86
	Instrumental support	0.38**	2.89
	Positive reframing	0.21*	2.07
	Planning	0.01	0.10
	Humor	0.18*	2.07
	Religion	0.14	1.64
Total model	Explained variance	46%	
	$F(8,101)$	10.65***	

Chemotherapy was coded as 1 = yes, 2 = no. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

after diagnosis) reported PTGI mean scores of 58.4 [6], 64.1 [12], and 64.7 [13]. In a heterogeneous cancer sample of Chinese cancer survivors (at least 5 years after diagnosis), Ho *et al.* [17] reported a mean PTGI score of 70.0, which is more similar to the mean score that we found. This latter finding suggests that the report of growth may to some extent be influenced by cultural background. However, as the studies vary by cancer site and time since diagnosis, it is difficult to draw definite conclusions about the differences in the prevalence of growth. Moreover, the overall difference between Asian and American cancer patients in the report of growth seems relatively small. The findings do not support the hypothesis of McMillen [16] that posttraumatic growth would be greater in the US than in other cultures. However, more cross-cultural longitudinal research is needed to clarify differences in the report of posttraumatic growth in patients with different cultural backgrounds.

As hypothesized and consistent with previous research [12,13], we found that posttraumatic growth was not significantly associated with psychological distress. Thus, the experience of posttraumatic growth is not necessarily associated with less distress as one would perhaps expect. A recent longitudinal study on cancer patients' perceptions of positive and negative illness-related changes found that positive changes were not significantly related to changes in negative affect [30]. It seems that posttraumatic growth and distress, and positive and negative psychological outcomes in general, are two different constructs and relatively independent of each other [2,31].

Correlation analyses showed that the use of active coping, emotional and instrumental support, positive reframing, humor, planning, and religion were significantly related to posttraumatic growth; the more use of these coping strategies, the greater experience of posttraumatic growth. This finding is in line with the results from a review on positive changes following adversity, showing positive associations of active problem-focused coping, positive reinterpretation, religious coping, and social support with posttraumatic growth [32]. In contrast, avoidant coping strategies, such as behavioral disengagement, self-blame, and denial, were not significantly related to growth. Regression analyses showed that especially instrumental support, positive reframing, and humor were significant predictors of posttraumatic growth. Patients who had been getting advice and help from others, those who tried to see the situation in a different light, and those who had been making jokes about the situation reported relatively more posttraumatic growth, than patients who had made less use of these coping strategies.

The strong association of positive reframing with posttraumatic growth has also been observed in other studies among cancer patients [6,13,14,28]. Some researchers have pointed out that posttraumatic growth may be viewed as a coping strategy and that it may be difficult to distinguish positive reframing coping and posttraumatic growth [33]. The items of the positive reframing scale and posttraumatic growth scale indeed show some resemblance. However, Sears *et al.* [6] examined predictors of positive reframing coping and posttraumatic growth and concluded that they are related but distinct concepts, each having their own predictors. Recently, it has been suggested that some reports of growth may represent actual improvement, whereas other reports of growth may represent self-enhancing, cognitive distortions that individuals use as an effort to cope with the stressful event [34]. More longitudinal research is needed to distinguish the coping process from the outcome of posttraumatic growth that has emerged from the confrontation with the stressful event.

The use of instrumental support also appeared to be strongly related to the report of posttraumatic

growth. Earlier studies of cancer patients examining the role of coping in the experience of growth did not include coping by social support seeking. Studies that focus on social support as a coping resource found that cancer patients who received more support and who had previously talked more about the cancer experience reported more posttraumatic growth [12,35]. It can be reasoned that especially in an Asian cultural setting with its emphasis on relationships, coping related to seeking support will play an important role in patients' psychological functioning. Supportive others can provide opportunities for self-disclosure, stimulate cognitive processing and adaptive coping, offer new perspectives, and assist people to find (positive) meaning in the experience [2]. Our findings show that future studies in cancer patients on posttraumatic growth need to examine a wide array of coping strategies.

The results also confirmed our hypothesis that avoidant coping strategies such as giving up, self-blame, and denial would not be significantly related to posttraumatic growth. This is consistent with the reports of Ho *et al.* [17] and Urcuyo *et al.* [14]. For health-care professionals working with cancer patients, this means that posttraumatic growth can be more effectively enhanced by stimulating the use of approach coping strategies such as the use of support, humor, and positive reframing, than by reducing avoidant coping strategies.

When interpreting the results of this study, several limitations should be discussed. The cross-sectional design limits drawing conclusions about a causal relationship between coping strategies and posttraumatic growth. For example, there is no sure proof that positive reframing induces posttraumatic growth. We can only conclude that these variables co-occur. There is evidence that coping strategies may be differentially related to posttraumatic growth at different time points since the diagnosis [36]. Therefore, future longitudinal studies are needed to provide more definitive information regarding the process of posttraumatic growth and the role of coping herein. Such future research should also take into account the possibility that relationships between posttraumatic growth and other variables may be curvilinear [37]. A second concern is the use of the original English language versions. We chose the English versions rather than translated versions, as Malaysians are familiar with English and using the English version enabled us to make comparisons with the studies conducted in the US. However, as the questionnaires were developed in the US, it remains debatable if the questionnaires have sufficient cultural validity to be applied cross-culturally [21]. A third factor to keep in mind is that the participants came from a complementary cancer treatment center. This means that the results from this study may not be generalized to other groups of cancer patients.

A final limitation is the use of a self-report questionnaire to measure posttraumatic growth. Although posttraumatic growth was measured with a well-validated tool, it has been suggested that such closed-ended posttraumatic growth checklists may prompt some people to report positive consequences, thus leading to exaggerated reports of posttraumatic growth [3].

In conclusion, our findings provide important information about the experience of posttraumatic growth and coping with cancer in a non-Western culture. The results suggest that the experience of posttraumatic growth following a diagnosis of cancer is universal. Malaysian cancer patients showed similar trends regarding the occurrence and correlates of posttraumatic growth as cancer patients in Western countries, with more use of approach coping strategies related to greater posttraumatic growth. Health-care professionals working with cancer patients in non-Western countries need to be aware of the possibility that patients may also experience positive changes as a result of the coping process with cancer. Rather than giving patients the message that they should look for the 'silver lining', health-care professionals may acknowledge the negative consequences of the illness and help patients to see the situation from a different perspective, by stimulating them to find their own meaning in the situation and to integrate the experience into their life.

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